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Biographies

1959

Schultz, John W., Vita, Engineer's Council for Professional Development

Schultz, John W.

Monterey, California, Naval Postgraduate School

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U.S. NAVAL POSTGRADUATE SCHOOL
Monterey, California

1. John W. Schultz
2. Metallurgy & Chemistry
3. 27
4. Assistant Professor
5. B.S., Chemistry, Oregon State College, 1953
Ph.D., Chemistry, Brown University, 1957
6. 1 Year
7. Research Instructor, University of Washington 1956-58
8. None
9. Nkn
10. None
11. Bond Moments and Bond Moment Derivatives of $C^{12}_2N^{14}_2$ and $C^{12}_2C^{13}_2N^{14}_2$
from Infrared Intensities - Journal of Molecular Spectroscopy, 2, 113-119(1958)
12. American Physical Society
American Chemical Society
Sigma Xi
13. Term II - last year - Ch-401 - 3 hrs. lecture, 2 hrs. lab - 2 section lab only
Term III - " " - Ch-401 - 3 hrs. lecture, 2 hrs. lab - 1 section
Term IV - " " - Ch-561 - 3 hrs. lecture, 2 hrs. lab - 1 section
" " - " " - CE-611 - 3 hrs. lecture, 2 hrs. P.W. - 1 section
Term I - this year - Ch-106 - 3 hrs. lecture, 2 hrs. lab - 3 sections(lecture &
lab)
14. Thesis students : 1 hour per week.

Note: Ch-401 - Physical Chemistry (Ord)
Ch-561 - " "
CE-611 - Thermodynamics
Ch-106 - Principles of Chemistry I

Sept. 14, 1959

U.S. NAVAL POSTGRADUATE SCHOOL
Monterey, California

1. James W. Wilson
2. Metallurgy & Chemistry
3. 43
4. Professor
5. B.A. Chemistry, S.F.A. State College, Nacogdoches, Texas, 1935,
B.S. in Chem. Eng., University of Texas, 1939,
M.S. in Chem. Eng. Texas A. & M. College, 1941.
6. 10 years
7. Instructor of Chemical Engineering, Columbia University, 1946-49
Instructor of Ordnance & Gunnery, USNE. Midshipman's School, New York, 1943-45
Instructor of Chemistry, Texas A.& M. College, 1941-42,
Instructor of Chemistry, S.F.A. State College, Nacogdoches, Tex. summer 1940
Graduate Assistant in Chemistry & chemical Engr. Texas A.& M. College, 1939-41
Jr. High School Science Teacher, Nacogdoches, Texas 1935-36.
8. None
9. Part-time Chemist, Nacogdoches, Texas, Silica Co. (Silica-Gel production)
1934-36,
Part-time clerk as undergraduate student 1932-34
10. Consultant to Power & Heating Plant, Columbia University, 1947-49
11. None
12. Member American Institute of Chemical Engineers
Member American Chemical Society
Member Phi Lambda Upsilon & Alpha Chi

13.	<u>TERM</u>	<u>Course and Description</u>	<u>Hours</u>
	I (1959-60)	Ch.E. 614(A) Chemical Engr. Thermodynamics	3-2
	" "	Ch. 121(B) General & Petroleum Chem. Lab	0-2
	" "	Ch-001 Principles of Chemistry I Lab	0-2
	" "	Ch-106 General Chemistry Lab	0-2
	IV (1958-59)	Ch.E. 614(A) Chem. Eng. Thermod. (2nd course) (in a sequence of two)	3-2
	" "	Ch.E. 631(A) Chem. Eng. Thermod. (1 term or terminal course)	3-2
	" "	Ch. 571(A) Explosives (last 4 wks. only)	3-2
	" "	Mt. 001 Materials of Engineering (last 4 weeks)	4-0

Prof. James W. Wilson

<u>TERM</u>	<u>Course & Description</u>	<u>Hours</u>
III (1958-59)	Ch.E.542 - Reaction Motors	3-2
	Ch.571 - Explosives - Lab lectures	3-2
	" " " Lab	0-2
II (1958-59)	Ch.E.711(C) Chem. Engr. Calculations (Stoichiometry	3-2
	Ch.E.631(A) Chem. Engr. Thermod. (1 term or terminal course)	3-2
	Mt.001 Materials of Engineering (last 4 weeks)	4-0

14. Supervision of Research and Thesis of 2nd year Ordnance Students (M.S.)
 Substitute teaching for colleague on sick leave & for two on military leave
 (2 weeks each)
- Faculty and Departmental Committees
- General Faculty & departmental meetings
- New course and curriculum study, planning course descriptions - catalogue
- Assist in equipment procurement lists
- School Charity Drives - Solicitations & Representative
- Filling out required forms, questionnaires and other lists
- Guiding visitors on tours through department spaces

Sept. 14, 1959

U.S. NAVAL POSTGRADUATE SCHOOL
Monterey, California

1. Hans W. Wohlgemuth
2. Metallurgy & Chemistry
3. 36
4. Instructor
5. None - four years college work, major Chemistry, Danzig, 1942-43 and Graz, Austria, 1947-50. Study interrupted, immigration to U.S.A. in Sept. 1951
6. - On faculty since July 31, 1959
7. Instructor in
 - (a) Scientific German (2-term course)
 1. At U.S. Naval Postgraduate School, Monterey, Feb.-May 1959
 2. At Battelle Memorial Inst. Columbus, Ohio, 1956-57
 3. for groups of science students of the Ohio State University, Columbus, Ohio, 1956 & 57.
 - (b) Conversational German (a two-term course)
 1. At the U.S. Army Language School, Monterey, Cal. 1957-59
 2. At the Y.M.C.A. School in Columbus, Ohio - 1956
 3. For British Officers in occupied Austria - 1945-51
 - (c) Conversational French (a two-term course)
 1. for groups of private students in Columbus, Ohio, 1954-57
 2. " " " " in New York, N.Y. 1951-52
 3. " " " " in Austria, 1945-51
 - (d) Conversational English (a two term course)
 1. for German immigrants in Monterey, Cal. - 1958-59
 2. for German immigrants in Columbus, Ohio - 1952-57
 3. for groups of private students in Graz, Austria, 1947-51
8. Chemist at the Analytical Laboratory of the Engineering Experiment Station of the Ohio State University, Columbus, Ohio, 1952-57.
9. None
10. None
11. None
12. None
13. First term this year - Ch-001 - 1 lab., 5 sections, 6 hours
(General Inorganic Chemistry)
14. None

September 14, 1959

1. Alfred W. Cooper
2. Physics
3. 27
4. Assistant Professor
5. B.A. Physics, Dublin Univ. 1955, M.A. Physics, Dublin Univ, 1958
6. 2
7. Assistant Lecturer, The Queen's University, Belfast (N.I.) 1956-7.
8. —
9. —
10. —
11. Moving Striations: Phys. Rev. 105, 4, 1957
Simultaneous Occurrences of Moving & Standing Waves in a Positive Column.
Nature, 181, May 1958
12. Member, American Physical Society
13. I. Optics 0-3 Elementary Phys. 0-6
II. Optics 3-6
III. Atomic Physics 3-0, Elem. Phys. 0-6
IV. Optics 3-6
14. —

1. John N. Cooper
2. Physics
3. 45
4. Professor
5. A.B. Physics, Kalamazoo College 1935
Ph.D. Physics, Cornell Univ. 1940
6. 3
7. Graduate Assistant, Cornell Univ. 1935-40
Instructor, U. of Southern California 1940-43
Asst. Prof. U. of Oklahoma 1943-44, 1945-46
Asst., Associate & Full Professor, Ohio State Univ. 1946-1956
Visiting Professor, U. of California at Los Angeles Summer 1947
8. Research Physicist, U. of California Radiation Laboratory
March 1943- Sept. 1944
9. Staff Member, Sandia Corporation Mar-June, 1951; June-Sept. 1952,
Sept.-Dec. 1953, June-Sept. 1954
Consultant - Ramo-Wooldridge Corp. June-Sept. 1955, 56, 57, 58
Consultant - Space Technology Laboratories June-Sept. 1959
10. Consultant, Ramo-Wooldridge Corp. Sept. 1957-Nov. 1958
Consultant, Space Technology Labs. Nov.-58 - Present
11. Book-Elements of Physics (with Alpheus W. Smith)
McGraw-Hill Book Co. 1957
The Stopping Powers of Various Elements for Protons of Energies from
400 to 1000 kev (with A.B. Chitton and J.C. Harris) Physical
Review 93, 413(1954)
Resonance Capture of Protons by Mg^{25} (with W.E. Taylor and L.N. Russell)
Physical Review 93, 1056(1954)
Gamma Radiation from Mg^{26} under Proton Bombardment (with L.N. Russell
and W.E. Taylor) Physical Review 93, 99(1954)
The stopping Cross Sections of Metals for Protons of Energies from 400
to 1000 kev With D.W. Green and J.C. Harris) Physical Review 98,
466(1955)
Also 12 abstracts of papers presented before American Physical Society
and published after Jan. 1, 1954.
12. American Physical Society (Fellow)
American Association of Physics Teachers
Sigma Xi
13. This Term
Ph 190(A)-Survey of Physics I 3-0
Ph 014(C)-General Physics IV Lab. 0-2
Ph 640(B)-Atomic Physics 3-0

13. Continued

Term II (1958-59)

Ph 191(C)-Survey of Physics II	3-0
Ph 620(B)-Atomic Physics	3-0
Ph 620(B)-Atomic Physics	3-0
Ph 750(A) Physics Seminar	0-1

Term III (1958-59)

Ph 321(B)-Electromagnetism	3-0
Ph 730(A)-Physics of the Solid State	0-3
Ph 730(A)-Physics of the Solid State	0-3
Ph 750(A)-Physics Seminar	0-1

Term IV (1958-59)

Ph 650(A)-Gaseous Discharges and Nuclear Instruments (Shared with Oleson & Kalmbach)	4-0
Ph 142(B)-Analytical Mechanics	4-0
PH 013(C)-General Physics III	0-3
PH-750(A)-Seminar	0-1

14. Supervision of and preparation for graduate student theses	8
Departmental committees and meetings	3
Student conferences	2
Reports and Questionnaires	1

1. Eugene C. Crittenden, Jr.
2. Department of Physics
3. 44
4. Professor
5. A.B., Physics, Cornell University, 1934; Ph.D., Physics, Cornell University, 1939
6. 6 years
7.
 - a) George Washington Univ., Assistant in Botany, 1931-32
 - b) George Washington Univ., Assistant in Physics, 1932-33
 - c) Cornell University, Graduate Assistant in Physics, 1934-38
 - d) Case Institute of Tech., Instructor-Ass't Prof. Physics, 1938-44
 - e) Case Institute of Tech., Assoc. Prof - Prof. Physics, 1946-52
 - f) U.S. Naval Postgraduate School, 1953-present
8.
 - a) Manhattan District Project (Atom Bomb Project), Research physicist, isotope separation; Univ. of Calif. Radiation Laboratory and Oak Ridge, Tenn., 1944-46.
 - b) Atomic Energy Research Dept. (now Atomics International) North American Aviation, Los Angeles. In charge Solid State Physics Division, 1952-53.
 - c) Ramo-Wooldridge Corporation (now Space Technology Laboratories) Los Angeles. Director Solid State Physics Group, Physical Research Laboratory. Research in superconductivity applied to high speed computers. Summer intersessional periods, 1946-present. (Continue as consultant during school year).
9. No part-time industrial experience except consulting, below.
10.
 - a) Atomics International, Los Angeles, problems in radiation effects in solids.
 - b) Ramo-Wooldridge Corporation (now Space Technology Laboratories), Los Angeles, problems in connection with the utilization of superconductivity as basis electronic components.
 - c) Varian Associates, Palo Alto, problems in connection with spin resonance in atomic systems.
 - d) Clevite Corporation, Cleveland, Ohio, problems in connection with friction between sliding surfaces.
11. See attached sheet.
12. American Physical Society, fellow; Vice-President, Cleveland, Ohio section 1951, President Cleveland Section, 1952. Member Sigma Xi; Vice President, Naval Postgraduate School Chapter 1956, President, NPS Chapter 1957.
13. Term II
 Ph-311 Electricity and Magnetism, 3 hrs., 1 section lecture
 Ph-620 Atomic Physics 3 hrs., 2 sections, lecture

 Term III
 Ph-730 Solid State Physics, 3 hrs., 2 sections, lecture
 Ph-730 Solid State Physics Lab. 3 hrs., 2 sections laboratory

13. Continued

Term IV

Ph-541 Statistical Mechanics, 4 hrs., 2 sections lecture
 Ph-723 Solid State Physics, 4 hrs., 1 section lecture
 Ph-750 Physics seminar, 1 hr. seminar

14. a) Exploratory research to establish basis for future student research, to establish reputation for the school, to keep abreast of recent developments, and for personal professional advancement. 6
 b) Direction of student research 3
 c) Consultation with lecture and laboratory students outside regular class and laboratory hours. 3
 d) Preparation of lectures, writing of lecture notes, quizzes, etc., grading of papers. 5
 e) Organization and management of teaching laboratories, development of new laboratory experiments, writing direction sheets, grading lab. reports. 2
 f) Administrative work: 6
 Administrative work connected with reorganization of curricula (a continuing obligation).
 Committee work concerned with administration requests (Proposals on computers, reactors, accelerators, new educational programs, questionnaires, etc.)
 Preparing budget requests, writing technician job descriptions for civil service, arranging building modifications.
 Handling visitors to the school, soliciting new faculty candidates.
 g) Management and operation of low temperature facility for schoolwide use. 2
 h) Professional society obligations: organizing local and national meetings for Amer. Physical Soc., refereeing papers for technical journal publication, reviewing project proposals for National Science Foundation, Office of Naval Research, etc. 2
 i) Reading of professional literature, writing papers, attending colloquia.

Total $\frac{3}{32}$

The above does not include approximately 6 hours per week on consulting research for additional pay. The above does not apply to the summer intersessional period of approximately ten weeks, during which almost all my time is spent on academic and consulting research.

I generally attend 2 to 3 professional society meetings a year. These usually consume about one week each including travel.

11. a) Techniques for Production of Thin Flat Films of Metal by Vapor Condensation, E.C. Crittenden, Jr., and R.W. Hoffman, *Le Journal de Physique et Le Radium*, 17, 199, Mar. 1956.
- b) Effects of Brillouin Zone Stratification on the Electrical Properties of Thin Films, E.C. Crittenden, Jr. and R.W. Hoffman, *Le Journal de Physique et Le Radium*, 17, 220, Mar. 1956.
- c) Ferromagnetic Properties of Thin Films of Nickel, E.C. Crittenden, Jr. and R.W. Hoffman, *Le Journal de Physique et le Radium*, 17, 270, Mar. 1956.
- d) Equipment for Observing Shear Modulus of Copper Under Irradiation, D.A. Powell, H.S. Sellers, E.A. Milne, and E.C. Crittenden, Jr., (Paper at Phys. Soc. Meeting) *Bul. Am. Phys. Soc.*, 8, 379, 1956.
- e) Effects of Electron Irradiation on the Shear Modulus and Internal Friction of Copper, H.S. Sellers, D.A. Powell, E.C. Crittenden, Jr., and E.A. Milne, (Paper at Phys. Soc. Meeting) *Bul. Am. Phys. Soc.* 8, 379, 1956.
- f) A New Memory Element Employing Persistent Currents in Superconductors, E.C. Crittenden, Jr., *Proc. Professional Group in Electronic Computers (PGEC) of the Inst. of Radio Eng'rs (IRE)*, Los Angeles Chap., Aug. 1957 (Test of Lecture given at IRE Meeting, Los Angeles July 11, 1957)
- g) A Computer Memory Element Employing Superconducting Persistent Currents, E.C. Crittenden, Jr., *Proc. Fifth International Conference on Low Temperature Physics and Chemistry*, Madison, Wis., Aug. 26-31, 1957.
- h) Resistance Changes in Phase Transition in Superconducting Fine Wires and Thin Films, F.W. Schmidlin and E.C. Crittenden, Jr., *Proc. Fifth International Conference on Low Temperature Physics & Chemistry*, Madison, Wis., Aug. 26-31, 1957.
- i) Superconducting Phase Transitions in thin films, Invited paper, *Am. Phys. Soc. meeting*, Stanford, Dec. 19-21, 1957. *Bul. Am. Phys. Soc.* 2, 369, 1957 title only, abstract in meeting announcement of Div. of Electron Physics.
- j) A Computer Memory Element Employing Superconducting Persistent Currents, invited paper ASEE meeting Monterey, Dec. 26-27, 1957 Title only, in meeting program.
- k) Patent application, Superconducting circuit element, Filed 5 June 1957 serial No. 663668. Also nine foreign patent applications on same subject filed 29 April, 1958 (Germany, France, Italy, Sweden, Canada, Grt. Britain, Switzerland, Japan, Holland)
- l) The Persistor - An Application of Low Temperature Solid State Physics, invited paper, joint meeting IRE Palo Alto and Monterey sub-sections and Northern Calif. Section Assoc. for Computing Machines (ACM, Monterey, May 23, 1958, summary in the *Grid* (IRE San Francisco Section) Vol. 4, p 18-22, May 23, 1958.
- m) Critical Currents for Superconducting Transitions in Thin Films, E.C. Crittenden, Jr., John N. Cooper, F.W. Schmidlin and A.J. Learn, *Bul. Am. Phys. Soc.* 4, 149 March, 1959 (abstract) Cambridge APS meeting.
- n) Superconductive Transitions Rates of Thin Films, F.W. Schmidlin, A.J. Learn, E.C. Crittenden, Jr., J.N. Cooper, *Bul. Am. Phys. Soc.* 4, 149, 1959 (abstract) Cambridge APS meeting.
- o) Normal to Superconducting Transitions in Thin Films, F.W. Schmidlin, E.C. Crittenden, Jr., J.N. Cooper, and A.J. Learn, *Bul. Am. Phys. Soc.* 4, 371, 1959 (Abstract, Honolulu meeting)
- p) Transition Times to the Superconducting State, J.N. Cooper, E.C. Crittenden, Jr., A.C. Lauer, and J.K. Nunnely, *Bul. Am. Phys. Soc.* 4, 371, 1959 (abstract, Honolulu meeting)
- q) Critical Currents in Superconducting Thin Films, E.C. Crittenden, Jr., J.N. Cooper, F.W. Schmidlin, and A.J. Learn, *Proceedings of the International Conference on the Structure and Properties of Thin Films*, Bolton Lake George, N.Y. Sept. 9-11, 1959 (to appear as McGraw Hill Volume)

1. W. Peyton Cunningham
2. Physics
3. 52
4. Professor
5. B.S. Physics - Mathematics - Yale 1928
Ph.D. Physics Yale 1932
6. 13
7. Head of Physics Department, California State Teachers College 1934-1938
Head of Science Department, The Tower Hill School, Wilimngton, Del. 1938-1943
Assistant Supervisor of Lecture Staff-Massachusetts Institute of Technology,
Boston, Mass, 1943-1946
Professor of Physics, U.S. Naval Postgraduate School, 1943 - present
8. None
9. None
10. 1956 Consultant for RCA in Study of Instrumentation for the extension
of the missile range at Point Mugu (Now PMR).
1957 Consultant for National Research Council on study of Naval Mine
Countermeasures, a project of the Mine Advisory Committee of the
National Academy of Sciences.
1958-59 Consultant for CORE on project for Rheem Manufacturing Company
11. Have written several items as portions of classified reports e.g.
Section on Optical Instrumentation for Extension of Missile Range at
Point Mugu (Secret) 1956
Section on Special Influence Fields and Section on Miscellaneous Counter-
measures as part of Project Monte Report (Secret) 1957.
Sections on Instrumentation of Drones used for Reconnaissance (Conf)
1958-1959.
12. American Physical Society - Member
American Association of Physics Teachers - Member
Operations Research Society of America - Member
Member of Education Committee 1956-1957
Member of Membership Committee 1947-1958
Western Section of Operations Research Society of America
Vice Chairman 1957
Vice Chairman 1958
Chairman 1959
SIGMA XI - Member
Secretary of U.S. Naval Postgraduate School Chapter 1959-1960.

13. First Term 1959-1960	Lecture	Lab	Recitation
Ph-241(C) Radiation	3	3	
OA-892 Orientation Seminar	0	0	1
Term II 1958-1959			
Ph-240(C) Optics & Spectra	3	0	
Ph-011(A) General Physics	0	3	
Oa 295(A) Analysis of Weapons System	3	0	
Term III			
Ph-141(B) Analytical Mechanics	4	0	(2 sections)
Term IV			
Ph-142(B) Analytical Mechanics	4	0	
Oa 293(B) Search Theory & Air Defense	4	0	
Oa 893A Seminar	0	0	2
14. Academic Associate for RO Curriculum			2 hrs. per week
For 1st Term of this year			
Acting Chairman of Department of Physics			20 hrs. per week
Member of Academic Council			5 hrs. per week.

1. Günter Ecker
2. Physics Department
3. 35
4. Professor
5. Vordiplom in Physics, University Bonn, 1943 (corr. BSc)
Hauptdiplom in Physics, University Bonn, 1946 (corr. MSc)
Dr. of Science, University Bonn, 1948
Dr. habil., Naturwissenschaftliche Fakultät Uni Bonn, 1953
6. One month
7. Assistant, 1949-1953, Inst.f.theor.Physik Uni Bonn
Scholar of Royal Soc. Long., 1953-1954, Queens University Belfast
Dozent, 1954-1955, University Bonn
Vis. Professor, 1955-1956, University Oklahoma
apl. Professor, 1956-1959, University of Bonn (corr. Res.-Prof.)
Professor, 1959, Naval Postgraduate School
8. None
9. None
10. Consulting work with the Gretag A.G., Zürich Switzerland and the National Carbon Company, Cleveland USA. Consultant work with the Calif. Radiation Laboratory Berkeley under preparation.
11. See list attached.
12. Member of "Nordwestdeutsche physikalische Gesellschaft" and "Society of the Sigma Xi"
13. 8 hours of "Theoretical mechanics" during this term. 2 Sections.
Last year 4 hours "Quantum mechanics" at Uni Bonn, Inst. Theor. Phys.
14. Research work under contract with the Kultusministerium Nordrhein Westfalen.

11. List of Papers by G. Ecker

1. 'Zur statistischen Beschreibung von Gesamtheiten mit kollektiver Wechselwirkung. I. Grundlagen und Grenzen kollektiver Beschreibung' Z. Phys. 140, 274 (1955)
2. 'Zur statistischen Beschreibung von Gesamtheiten mit kollektiver Wechselwirkung. II. Die Bedeutung der Beschränkungen des D-Modells für die Begriffsbildung und Ergebnisse kollektiver Beschreibung' Zs. Phys. 140, 294 (1955)
3. 'Zur statistischen Beschreibung von Gesamtheiten mit kollektiver Wechselwirkung. III. Die verschiedenen Formulierungen der Trägerkinetik' Zs. Phys. 140, 294 (1955)
4. 'Periodische Erscheinungen bei der Metallablosung an der Oberfläche von Mehrstoffsystemen' Spectrochimica Acta 7, 219 (1955)
5. 'Die Bedeutung der elektrodischen Emissionsprozesse in Rahmen der Kontraktionstheorie' Z. Phys. 142, 477 (1955)
6. 'Zustandssumme und effektive Ionisierungsspannung eines Atoms in Innern des Plasmas' Ann. Phys. 17, 126 (1956)
7. 'Die Linienverbreiterung im Plasma hoher Dichte' Zs. Naturf. 12a, 4 (1957), 346
8. 'Das Mikrofeld in Gesamtheiten mit Coulombscher Wechselwirkung' Zs. Phys. 148, 593 (1957)
9. 'Das Profil der Balmerlinien unter der Einwirkung von Ionen und Elektronenstößen' Zs. f. Naturf. 12a, 6 (1957) 517
10. 'Abweichungen von dem Holtsmark-Profil der Balmerlinien im Plasma' Z. Phys. 149, 254 (1957)
11. 'Zustandssumme und effektive Ionisierungsspannung im Innern des Plasmas' Zs. m. Weizel Zs. Naturf. 12a, 10 (1957) 859
12. 'Zum Leitungsmechanismus der CdS-Sandwichzellen' Zs. m. Fassbender Z. Phys. 149, 571 (1957)
13. 'Theorie der - Retrograde Motion -' Zs. m. Müller Z. Phys. 151, 577 (1958)
14. 'Theory of the Retrograde Motion' Zs. m. Müller Jour. Appl. Phys. 29, 1606 (1958)
15. 'Über die Wechselwirkungsenergie der Ladungsträger in einem Plasma' Zs. Naturf. 13a, 1093 (1958)
16. 'Plasmapolarisation und Trägerwechselwirkung' Zs. m. Müller Z. Phys. 153, 317 (1958)
17. 'The Microfield on a Neutral Particle in the Plasma' Zs. m. Müller Astrophysical Journal May 1959
18. 'Der Einfluss der individuellen Feldkomponente auf die Elektronenfeldemission' Zs. m. Müller Zs. Naturf. (im Druck)
19. 'Electron Emission from the Arc Cathode under the Influence of the Individual Field Component' Jour. Appl. Phys. (im Druck)
20. 'The Electrode Parts of the Arc Discharge' comprehensive article under U.S. Army Contract DA-91-508-EUC-375, covering the work on this subject from 1900 to 1959. Will be published in 'Ergebnisse der Exakten Naturwissenschaften'
21. 'Kritische Analysis der Beschreibung des Plasmas mit Hilfe der Fokker-Planck-Gleichung' Zs. m. Vosslander (in Vorbereitung)

1. Daniel H. Filson
2. Physics
3. 27
4. Assistant Professor
5. B.A. Cornell, 1954 - M.S. UCLA 1955 - Ph.D. UCLA 1958
6. $\frac{1}{4}$
7. Instructor, 1958-1959 U.C.L.A.
8. 0
9. 0
10. 0
11. Second Low Temperature Bordoni Peak in Aluminum PR 114, 1273, 1959
Low Temperature Ultrasonic Attenuation in Tin and Aluminum PR to be published.
12. Member: Sigma Xi, Acoustical Society of America, American Physical Society
13. Physics 196, 5-0 - Physics 450, 3-2
14. Research approximately 20 hrs/week.

1. Harry E. Handler
2. Physics
3. 34
4. Associate Professor
5. BA-Physics-UCLA-1949 (August)
MA-Physics-UCLA-1951 (June)
Ph.D.-Physics-UCLA-1955 (February)
6. One
7. (a) Instructor-General Electric School of Nuclear Engr.--
Richland, Wash.--1955-1958
(b) Teaching Assistant-UCLA--1951-1953
8. General Electric Co., HAPO, Richland, Wash.,-1955-1958 and summer 1959--
Senior Physicist
9. None
10. None
11. Gamma-Gamma Angular Correlation in the Decay of Chlorine-34, Physical Review 102
833(1956)
12. American Physical Society -
American Nuclear Society
American Association for the Advancement of Science
American Association of University Professors
Sigma Xi (Science Honorary)
Pi Mu Epsilon (Math. Honorary)
Tau Beta Pi (Engr. Honorary)
13.

<u>Term</u>	<u>Course</u>	<u>Hr. Lecture</u>	<u>Hrs. Lab.</u>	<u>No. Sections</u>
II:1958-59	Ph 651(A) Reactor Theory I	3	0	1
	E.P.D. 1 Gen. Physics	0	3	2
III:1958-59	Ph 642(B) Nuclear Physics	4	0	1
	Ph 643(B) Nuclear Physics Lab.	0	3	1
IV:1958-59	Ph 652(A) Reactor Theory II	3	0	1
	Ph 113(B) Dynamics	4	0	1
I: 1959-60	Ph 642(B) Nuclear Physics	4	0	1
	Ph 643(B) Nuclear Physics Lab.	0	3	2
14. (a) In charge of Physics Seminar-Ph 750: 3 hrs/week
(b) In charge of two thesis students: 6-8 hrs/week
(c) Dept. Committees: 2 hrs/week
(d) Assistant Academic Associate (NN) - 1 hr/week
(e) Reactor Operating Committee (Alternate)- $\frac{1}{2}$ h/week.

1. S.H. Kalmbach
2. Physics
3. 46
4. Associate Professor
5. B.S., M.S. in Physics, Marquette Univ. 1934, 1936
6. 10
7. Assistant Professor, Elmhurst College 1940-1943.
Naval Academy as Officer Instructor, 1946-1947.
8. None
9. None.
10. Consulting for Firestone, Dalmo Victor and Rheem Corp., primarily infra-red and reconnaissance devices.
11. "Moving Striation in Argon"- (A) Bul. Amer. Phys. Soc. No. 8, pg. 393-1956
"Optical Dispersion of NH_3 "- (A) Bul. Amer. Phys. Soc. No. 6, pg. 301-1957
12. Member of Physical Society, American Assoc. of Physics Teachers, and American Optical Society.
13. 1st Term (1959-60)
 - 3-0 Ph-190 General College Physics
 - 0-3 Ph-641 Atomic Physics Lab.2nd Term (1958-59)
 - 3-0 Ph-640 Atomic Physics
 - 3-2 Ph-240 Optics
 - 0-3 Ph-641 Atomic Physics Lab.
 - 0-2 Ph-341 Electricity Lab.3rd Term (1958-59)
 - 4-0 Ph-660 Atomic Physics
 - 0-3 Ph-661 Atomic Physics Lab.4th Term
 - 0-3 Ph-641 Atomic Physics Lab.
 - 3-0 Ph-640 Atomic Physics
 - 1-0 Ph-650 Nuclear Instrumentation
14. Supervise thesis work for two students las year and three students this year. Average hours per week - 12.

1. Lawrence E. Kinsler
2. Physics
3. 49
4. Professor
5. B.S. - Physics - Caltech - 1931
Ph.D. - Physics - Caltech - 1934
6. 13 years
7. Associate Professor, (1934-1941), Rollins College
Commander, (1941-1946), U.S. Naval Academy
8. None
9. None
10. RCA Service Co. - Summer 1956
Mine Advisory Committee- Summer 1957
Cooperative Research Institute-(1958-59)
Ramo-Wooldridge Co. - 1959
11. Vibration Section - Science & Technology Encyclopedia
4-Classified technical reports
12. Acoustical Society of America-Member
13. Term I - Transducer Theory (3-3)
Underwater Acoustics Lab (0-3)
Term II- Underwater Acoustics (3-2) (2 Sections)
Term III- Transducer Theory (3-3)
Shock Waves (3-0)
Term IV- Sonar Systems (5-6)
14. Academic Associate- 2 hours per week.

1. Edmund Alexander Milne
2. Physics
3. 32
4. Associate Professor
5. B.A. Physics; Oregon State College 1949
M.S. Physics; California Institute of Technology 1950
Ph.D. Physics, California Institute of Technology 1953
6. 5
7. None
8. None
9. None
10. Design of vacuum system for the tube extension of the tandem accelerator to be installed at California Institute of Technology.
11. Equipment for Observing Shear Modulus of Copper Under Irradiation.
D.A. Powell, H.S. Sellers, E.A. Milne and E.C. Crittenden, Jr. Bull. Am. Phys. Soc. Ser II, 1 379 (1956)

Effects of Electron Irradiation on the Shear Modulus and Internal Friction of Copper. H.S. Sellers, D.A. Powell, E.C. Crittenden, Jr., E.A. Milne. Bull. Am. Phys. Soc. Ser II, 1 379(1956).

Gamma-Ray Yield From the Proton Bombardment of Silicon. Norman K. Green, Richard F. Wiseman, and Edmund A. Milne, Bull. Am. Phys. Soc. Ser II, 2 377(1957)

 $S^{34}(P, \gamma) C^{35}$ Reactions. J.A. Moore, J.L. Krumwiede and E.A. Milne. Bull. Am. Phys. Soc. Ser II, 4 366(1959)

 $S^{33}(P, \gamma) C^{34}$ Reactions. A.H. Cashler, A.L. Knipp, Jr., and E. A. Milne Bull. Am. Phys. Soc. Ser II, 4 366(1959)
12. Sigma Xi American Physical Society
(Full Member) (Member)
13.

Ph-642-643	Nuclear Physics	4-3	I 59-60
Ph-642-643	Nuclear Physics	4-3	
Ph-721	Quantum Mechanics	4-0	II 58-59
Ph-312	Applied Electro Magnetism	3-0	III 58-59
Ph-645	Nuclear Physics Lab	0-3	
Ph-142	Analytical Mechanics	4-0	IV 58-59
Ph-642-643	Nuclear Physics	4-3	
14. Reactor Operating Committee 2
Isotopes Committee (less than one hour per/week)

1. John R. Neighbours
2. Physics
3. 35
4. Associate Professor
- 5.. B.S. - Physics 1949, Case Inst. M.S. Physics 1951 Case Inst.
Ph.D.-Physics 1953, Case Inst.
6. 0
7. Renssalaer Polytechnic Inst. Troy, N.Y. Asst. Prof. Physics 1953-1955.
8. Research Eng. Libbey Owen Ford Glass Co., Toledo, Ohio 1955-1956
Research Eng. Ford Motor Co. 1956-1959
9. 0
10. 0
11. "Crystal Stability and Elastic Constants", G.A. Alers and J.R. Neighbours,
J. App. Phys. 28, 1514 (1957)

"Elastic Constants of Silver and Gold", G.A. Alers and J.R. Neighbours,
Phys. Rev. 111, 707 (1958)

"Magnetic Contributions to the Elastic Constants of Nickel and an Fe-30Ni
Alloy at High Magnetic Fields", Alers, Neighbours and Sato. J.App. Phys
Supp. 30, 2315 (1959)

"Dependence of Sound Velocity and Attenuation on Magnetization Direction in
Nickel at High Fields", Alers, Neighbours and Sato. To be published in J.
Phys. Chem. Solids.

"Comparison of the Debye Θ Obtained from Elastic Constants and Calorimetry",
G.A. Alers and J.R. Neighbours. Rev. Mod. Phys. June 1959

"Magnetic Effects on Shear Wave Attenuation in Copper", J.R. Neighbrous and
G.A. Alers. Phys. Rev. Letters Sept. 1959.
12. Sigma Xi, American Physical Society
13. Ph-421 Fundamental Acoustics 3-0
Ph-431 Fundamental Acoustics 4-0
14. Research - 15 hrs.

1. Norman L. Oleson
2. Physics
3. 47
4. Professor.
5. B.S. 1935; M.S. 1937; Ph.D. 1940 in Physics all from University of Michigan
6. 11 years
7. Teaching assistant, University of Michigan 1936-1940; Instructor in Physics, U.S. Coast Guard Academy 1940-1946.
8. Research Physicist, General Electric Company, 1946-1948
9. Physicist, Detroit Edison Company, Summer of 1937.
10. Consultant to University of California Radiation Laboratory, Livermore since April 1958.
11. a) Travelling Density Waves in Positive Columns, Phys. Rev. 99, No. 6, 1701-1704 (1955)
 b) Moving Striations in Argon, Bulletin of American Physical Society, Series II, 1, No. 8, 393 (1956)
 c) Moving Striations, Phys. Rev. 105, No. 4, 1411-1412 (1957)
 d) Some Experimental Aspects of Moving Striations in Argon, Proceedings of the Third International Congress on Ionization Phenomena in Gases, Venice (1957)
 e) Empirical Relations for Moving Striations, Proc. Phys. Society 73, 526 (1959).
 f) Relaxation Type Oscillations in An Argon Glow Discharge, Program of 12th Annual Gaseous Electronics Conference, Washington (1959)
 g) Properties of a Highly Ionized Helium Plasma in a Magnetic Field, Program of the First Divisional Meeting, Division of Plasma Physics, Monterey (1959)
12. Member of American Physical Society,
 Member of Sigma Xi
 Member of Executive Committee, Division of Electron Physics, American Physical Society.
13. 1st Term: a) Kinetic Theory and Statistical Mechanics, 4 hrs. of lecture
 b) Elementary Physics Laboratory - 3 hrs. of lab.
 2nd Term a) Analytical Mechanics-4 hrs. of lecture,
 Last Year b) Atomic Physics-3 hrs. of lecture 1 section, 3 hrs. lab-1 section
 3rd Term a) Electricity and Magnetism-4 hrs. of lecture, 2 hrs. lab. 1 section
 Last Year b) Thermodynamics, 3 hrs. of lecture - 1 section
 4th Term a) Advanced Mechanics- 4 hrs. of lecture 1 section
 Last Year b) Kinetic Theory, 4 hrs. of lecture - 1 section
14. a) Supervisor of Laboratory Technicians, Physics Department; 1 hr. per/week
 b) Member of the Postgraduate Research Committee (Represents ONR and other agencies on selection of research projects and distribution of research funds); $\frac{1}{2}$ hr per week.

14. Continued

- c) Chairman of the Faculty Status Committee (Advises administration of faculty matters and calls its attention to various faculty grievances); 2 hours per week.
- d) Supervise at least 4 students doing experimental work for a M.S. in Physics. 4 hours per/week.
- e) Research in plasma physics, 15 hours per/week
- f) Program Chairman for Division of Electron Physics, $\frac{1}{2}$ hr per/week.

1. John D. Riggin
2. Physics
3. 48
4. Professor
5. B.S. E.E. Uni. Miss. 1934 - M.S. Physics Uni. Miss. 1936
6. 13½ years
7. Uni. Miss. Grad. Student Asst. 1935-36, Naval Academy, Instr. 1941-45
8. RCA, Chicago, Electronic Engineer 1936-40
Nat. Bureau Standards Wash. D.C., Jr. Physicist 1940-41
9. 0
10. 0
11. 0
12. Member, American Physical Society
Member, Am. Asso. Physics Teachers
Member, A.A.U.P. Pres. Local Chapter.
13. Last Year

Term	Course	Lecture	Lab	Sections
II	Ph-011 Mechanics	8	3	2
III	Ph-012 Heat-Sound-Optics	8	3	2
IV	Ph-013 Electricity	6	3	2
This Year				
I	Ph-014 Modern Physics	8	3	2
14. Ordering, receiving and inspecting lab. equipment for Gen. Phys. Lab.
Average per/week 8 hrs.

1. Oscar Bryant Wilson, Jr.
2. Physics
3. 37
4. Associate Professor
5. B.S., Physics, Univ. of Texas, 1944; M.A., Physics, Univ. of Calif., Los Angeles, 1948; Ph.D., Physics, Univ. of Calif., Los Angeles, 1951.
6. 2
7. Teaching Assistant, Univ. of Texas 1943, 1944
Teaching Assistant, U.C.L.A., 1946-1950
Instructor, Univ. of Calif., Extension Div. 1956
8. Hughes Aircraft Co., 1951-1952, Research Engineer
Soundrive Engine Co., 1952-1957, Physicist.
9. Acoustical Consultant - Occasionally during past 8 years.
10. --
11. Measurements of Sound Absorption in Aqueous Salt Solutions by a Resonator Method, with R.W. Leonard, J. Acoust. Soc. Am. 26, 223-226, 1954.

Acoustic Impedance of a Helmholtz Resonator at High Amplitudes, with D.A. Bies, J. Acoust. Soc. Am., 29, 711-714, 1957.
12. American Physical Society, Member
Acoustical Society of America, Member
American Association for the Advancement of Science, Member
Institute of Radio Engineers, Member
Society of Sigma Xi, Member
13. Term I - Ph-441 (4-0) 2 sections
Term II - Ph-432 (4-3) and Ph-428 (3-0)
Term III - Ph-421 (3-0) and Ph-432 (4-0)
Term IV - Ph 442 (3-0); Ph-428 (3-3); Ph-190 (1-rec)
14. --